Isotope Stock Inventory System
I.S.I.S.

User Manual March 2009

http://isis.ncl.ac.uk

Users need to log on to ISIS using their University network account log in and password. This is not the same as 'My Profile' or portal passwords.
On first log in you will not see anything until the Radiation Office have granted access and permission level has been granted. RPS / PI will need to import users into their groups. If no access has been granted please contact the URPO.

The ISIS programme is displayed on a web browser. Care should be taken and use must be made of the tabs to review other pages and not the web browser back button.

How to:

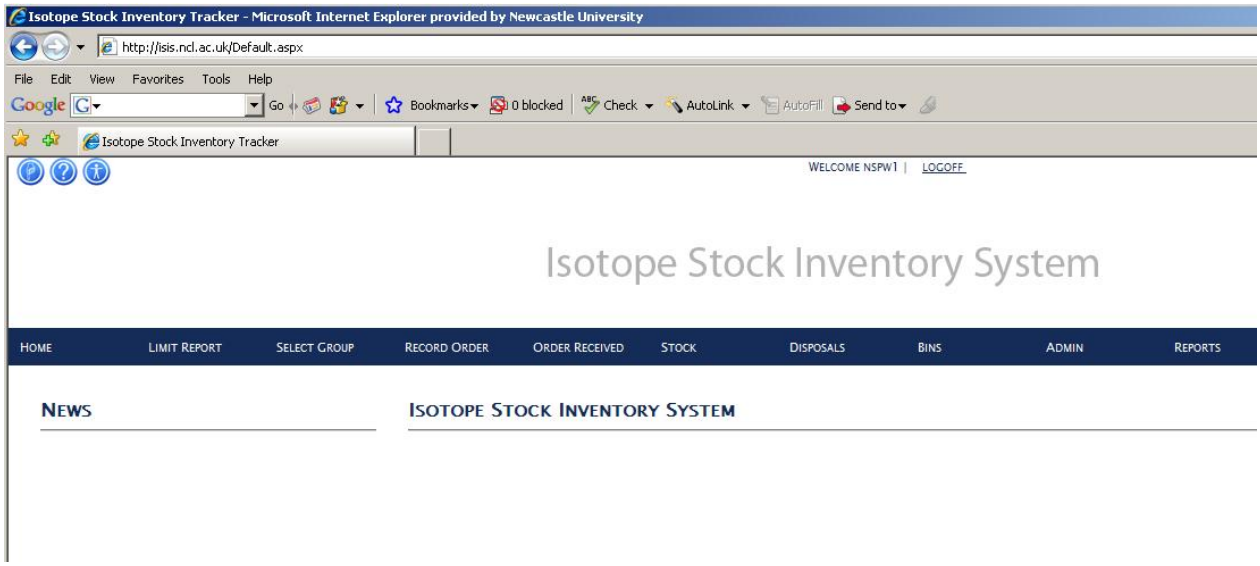
Log on
Choose Your Radiation Group
Receive an Order
Move location of a stock vial or sample
Transfer a Stock
Use your Isotope and make a simple disposal
Create a Secondary Stock
Create a Retained Sample
End disposal of a stock, sample or vial
Create a Bin
Send a bin to storage
Create a storage place (Fridge / Freezer)
Granulate waste
Liquid wastes
Populate the Radiation Group (Invite members)

How to Log-On to ISIS

ISS login ID should be used with your regular ISS password. NHS employees using the system need to contact their RPS who will arrange with URPO to provide a Log in and password.
Your 1st login will not give you immediate access. URPO will be informed and appropriate user privileges will be set up.

ISIS Home Page

Following registration a number of user tabs will become visible depending upon level of access granted.



Not all the Tabs can be viewed by every user. There are 3 levels of User access.

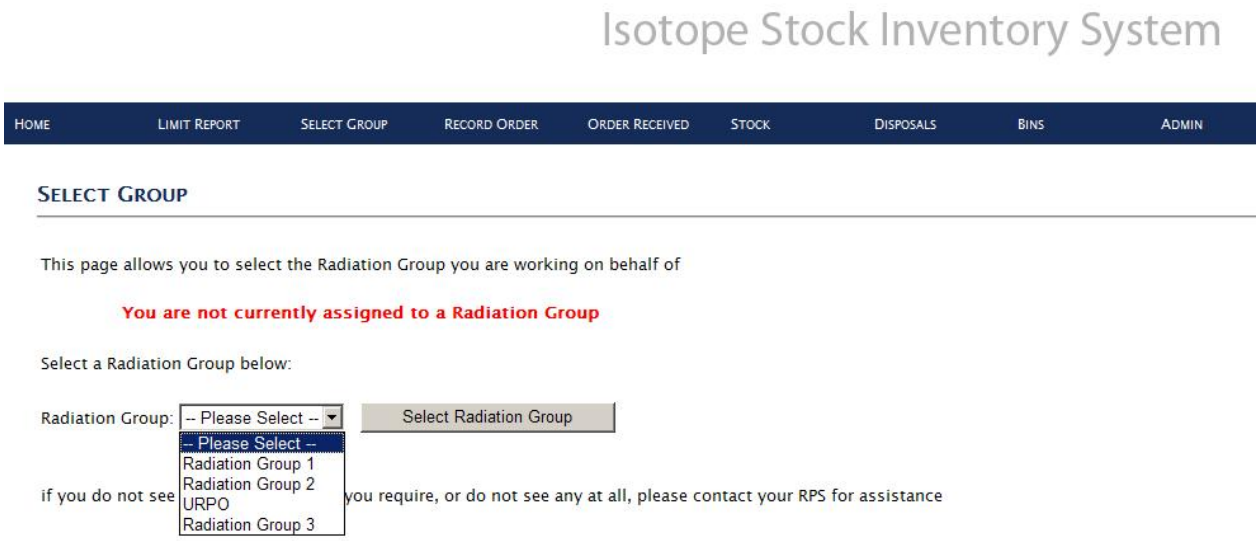
Access Level 1 Administrator –URPO Staff can update and amend almost everything, review all groups and all sites. Audit of stocks, orders, Site limits (EA authorisations), Waste disposal off site. + all level 2 & 3.

Access Level 2 Radiation Protection Supervisor / Laboratory PI allows; Select Group, Order Received, Stock, Disposals, Bins, Admin(Group membership), Reports (Stock trail)+ all level 3.

Access Level 3 Regular users of the software allows; Select Group, Order Received, Stock, Disposals, Bins (create and to store).

Choose your Radiation Group

Use Select Group to view the radiation group to which you are assigned. Some people work in different radiation groups or RPS' may have access to different groups. You need to be assigned to the group by the 'owner' or RPS. You should only see the groups to which you have access.



From here you will be able to review the stock in the designated labs used by the group. (for RPS / PI to admin the User group click here)

NOTE to RPS

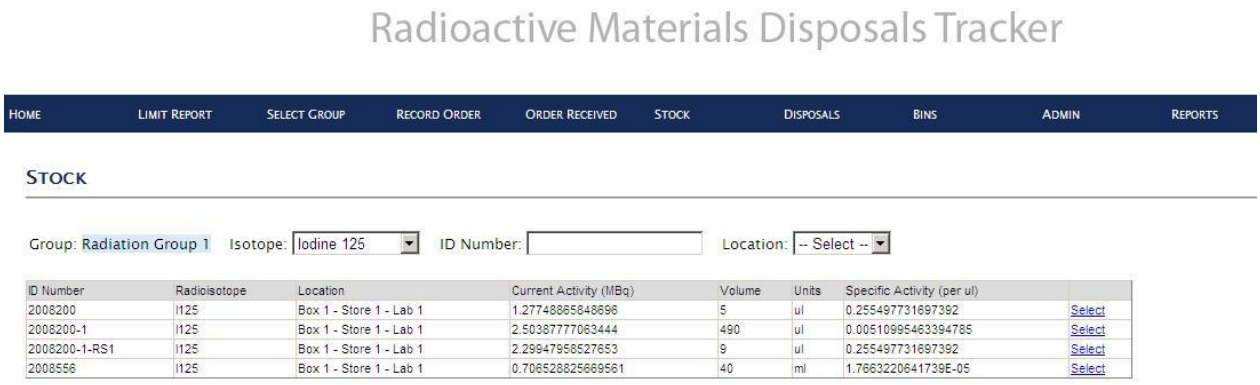
The RPS or laboratory PI must move users into the User Group. This is so that the responsibility of users in the laboratory is down to the RPS.

Order Received

This screen shows the number of outstanding orders that have been placed. You should only see the unused / new stocks assigned to your radiation group. Upon receipt in the laboratory of a stock of Isotope hit 'View' and insert the details:

The Stock ID will be provided for automatically. Choose the location such as Fridge, Lab ID etc. (ID no. is automated). To create a new storage point go here.
Most of the manufacturers will provide more volume than state on the label. A measurement should be made of the volume before inserting the details into the field. Changes can not be rectified later. The activity and the 'as of' date stated should be inserted. These details can be found on the packing or consignment note and on the container label.
The volume, activity and date are all important and will provide the information required to make accurate decay corrections.
You should then fill in the label provided with your stock, attach it to the stock pot and then place in the named store.

Review Stock


Radioactive Materials Disposals Tracker
HOME
LIMIT REPORT
SELECT GROUP
RECORD ORDER
ORDER RECEIVED
STOCK
DISPOSALS
BINS
ADMIN
REPORTS
STOCK
Group: Radiation Group 1
Isotope: Iodine 125
ID Number:
Location: -- Select --
ID Number | Radioisotope | Location | Current Activity (MBq) | Volume | Units | Specific Activity (per ul)
2008200 | I125 | Box 1 - Store 1 - Lab 1 | 1.27748865848696 | 5 | ul | 0.255497731697392 | Select
2008200-1 | I125 | Box 1 - Store 1 - Lab 1 | 2.50387777063444 | 490 | ul | 0.00510995463394785 | Select
2008200-1-RS1 | I125 | Box 1 - Store 1 - Lab 1 | 2.29947958527653 | 9 | ul | 0.255497731697392 | Select
2008556 | I125 | Box 1 - Store 1 - Lab 1 | 0.706528825669561 | 40 | ml | 1.7663220641739E-05 | Select

This screen offers a list of current stock within various different locations, but only in your radiation group. There is updated decay correction, specific activity and remaining volume of the stocks. All stocks are calculated using specific activity. On occasion there may be a solid sample produced (retained sample) where a percentage of the activity is assigned. This will show up as a volume. Choose 'Select' to view stock details or use the Location / Isotope choices to filter selection.

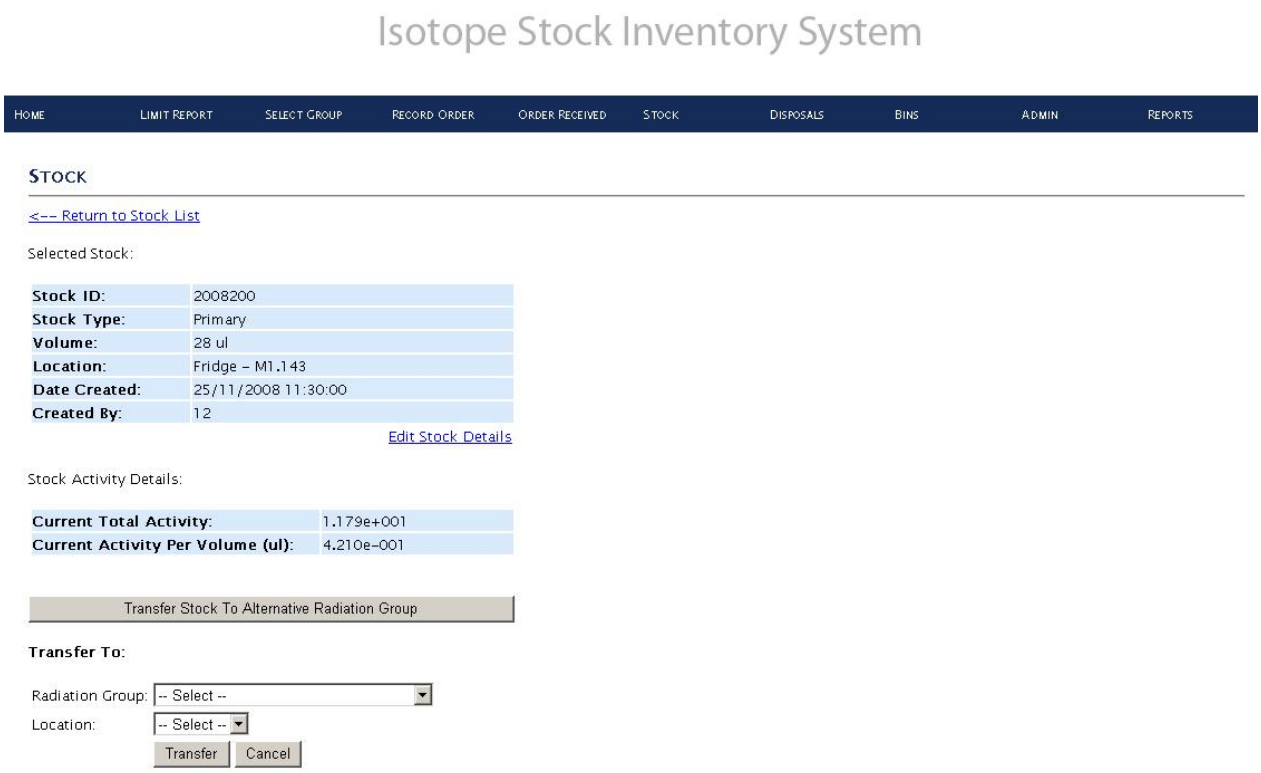
Change Location of the Stock

Upon receipt of a stock the location may need to be changed. This can be done at any time by selecting the stock from the stock view page and updating the available fields. (Shown below)

Transfer of Stock

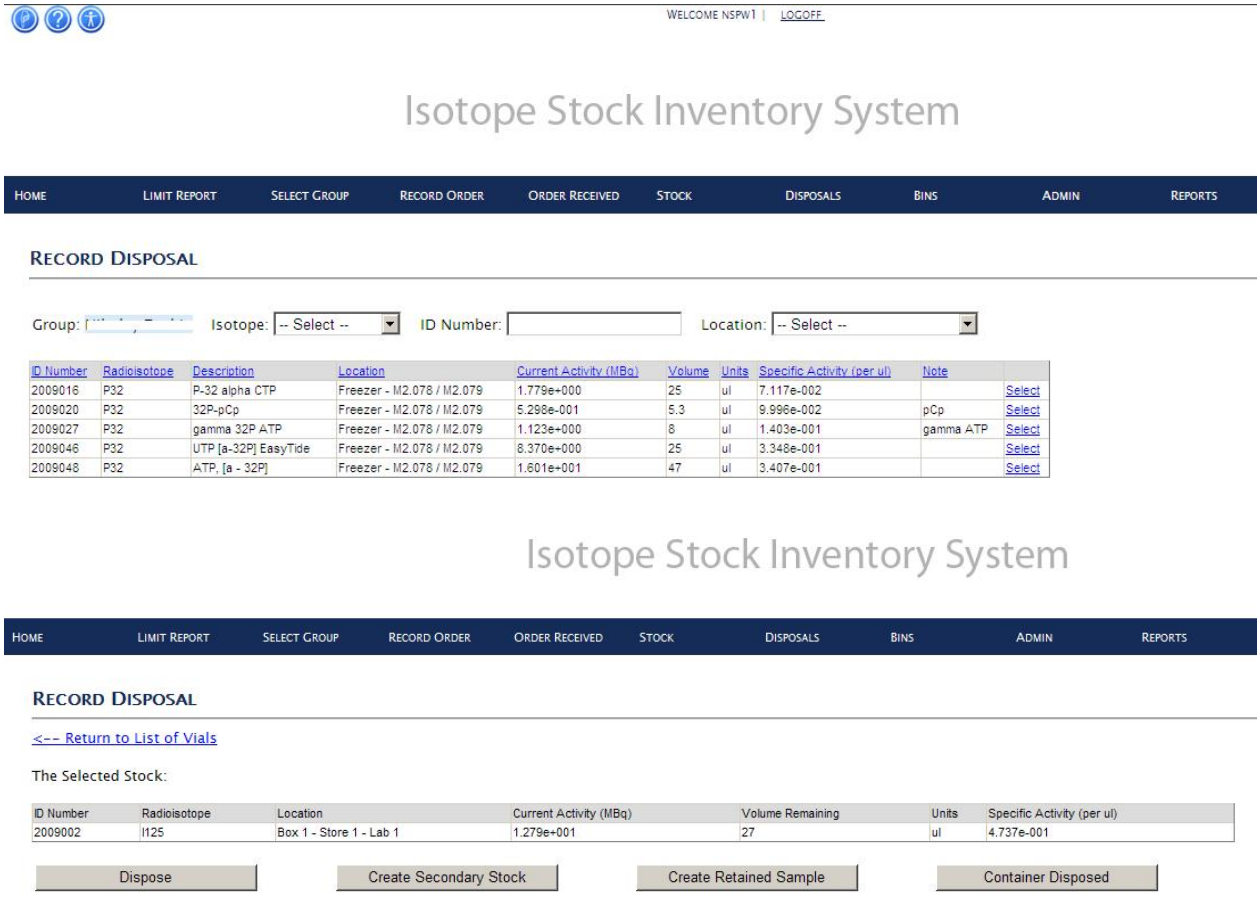
Transfer Stock to another Radiation Group

From the Stock Page, choose stock via ‘Select’
Use the ‘Transfer Stock’ tab and select the new Radiation Group and location. This will transfer the stock identified to the new group. If you need to transfer part of a stock you will need to create a secondary stock and transfer that instead.
You can not import stock via this method. Only the owner can transfer stock.
Stocks transferred from other institutions not using ISIS will need to be done via URPO or a nominated administrator.



Use and Disposal Recording

Use this screen to decide which Stock you are going to use. ‘Select’ your stock.


WELCOME NSPW1 | LOGOFF
Isotope Stock Inventory System
HOME LIMIT REPORT SELECT GROUP RECORD ORDER ORDER RECEIVED STOCK DISPOSALS BINS ADMIN REPORTS
RECORD DISPOSAL
Group: Isotope: -- Select -- ID Number: Location: -- Select --
ID Number Radioisotope Description Location Current Activity (MBq) Volume Units Specific Activity (per ul) Note
2009016 P32 P-32 alpha CTP Freezer - M2.078 / M2.079 1.779e+000 25 ul 7.117e-002 Select
2009020 P32 32P-pCp Freezer - M2.078 / M2.079 5.298e-001 5.3 ul 9.996e-002 pCp Select
2009027 P32 gamma 32P ATP Freezer - M2.078 / M2.079 1.123e+000 8 ul 1.403e-001 gamma ATP Select
2009046 P32 UTP [a-32P] EasyTide Freezer - M2.078 / M2.079 8.370e+000 25 ul 3.348e-001 Select
2009048 P32 ATP, [a - 32P] Freezer - M2.078 / M2.079 1.601e+001 47 ul 3.407e-001 Select
Isotope Stock Inventory System
HOME LIMIT REPORT SELECT GROUP RECORD ORDER ORDER RECEIVED STOCK DISPOSALS BINS ADMIN REPORTS
RECORD DISPOSAL
<-- Return to List of Vials
The Selected Stock:
ID Number Radioisotope Location Current Activity (MBq) Volume Remaining Units Specific Activity (per ul)
2009002 I125 Box 1 - Store 1 - Lab 1 1.279e+001 27 ul 4.737e-001
Dispose
Create Secondary Stock
Create Retained Sample
Container Disposed

Decide which is best way to track Isotope use.

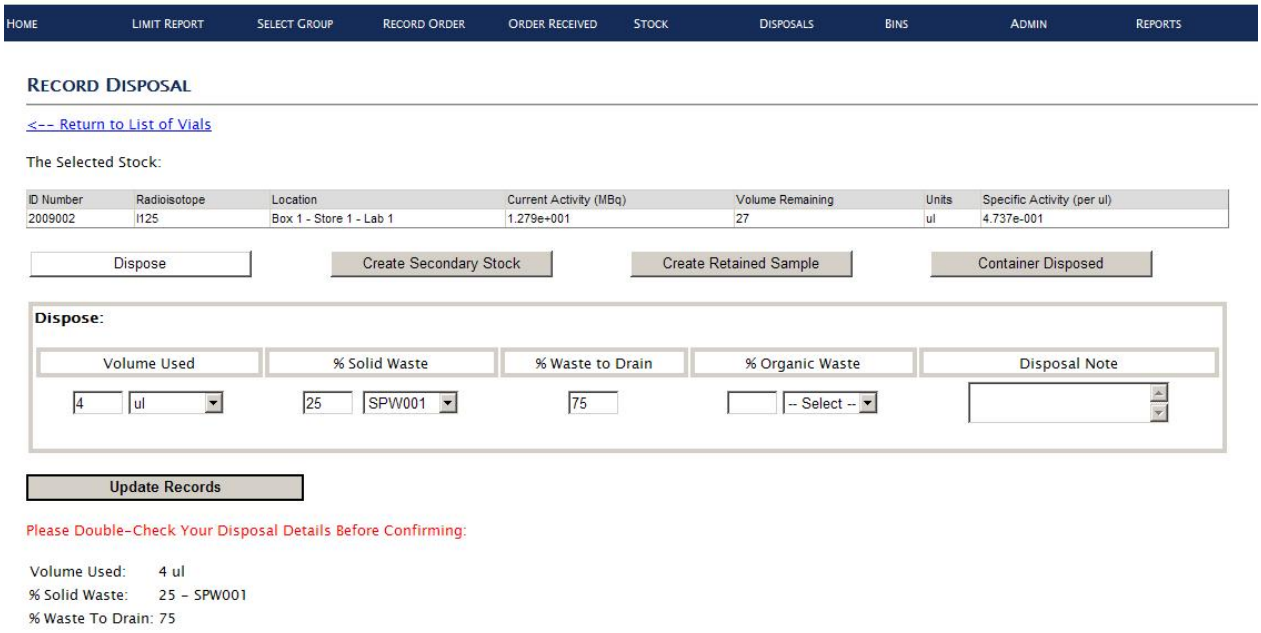
Dispose; for simple single use disposal where there is no retained activity from that used.

Create **Secondary Stock** for dilutions, splitting stock up, creating working solutions – allows for new volume to be added and creates new ID number.

Create **Retained Sample**; Use of stock or Secondary stock where a sample will be kept either as a gel or leftover for future use. – note; cannot increase the volume of that used.

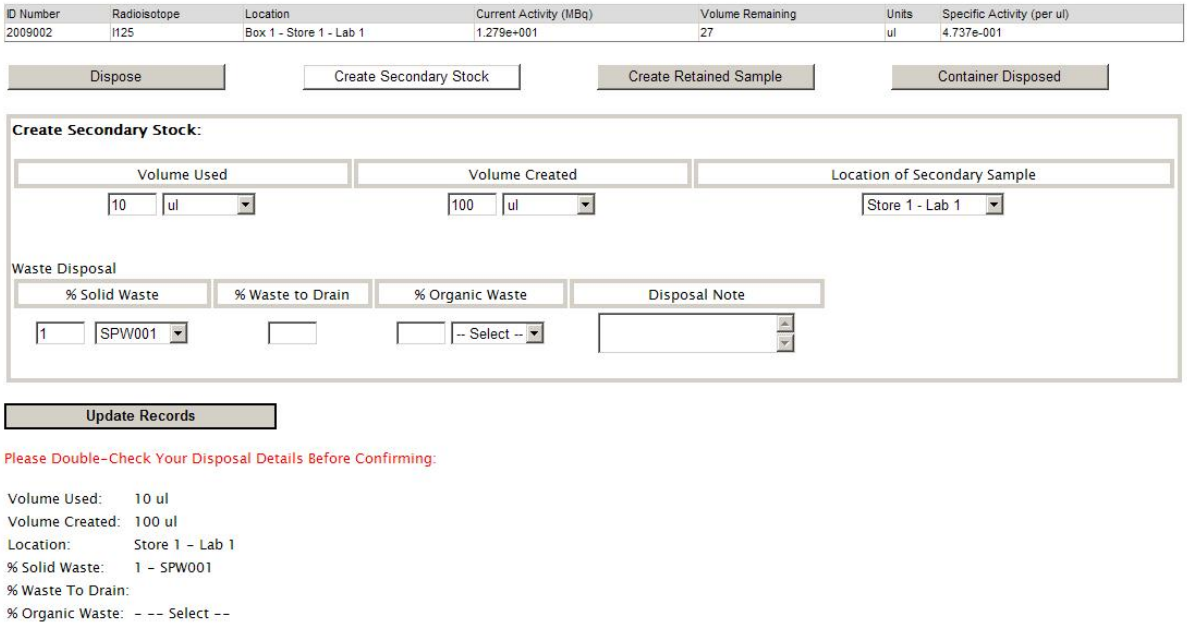
Container Disposed; for end disposal of the stocks, retained samples, vials etc.

Disposal



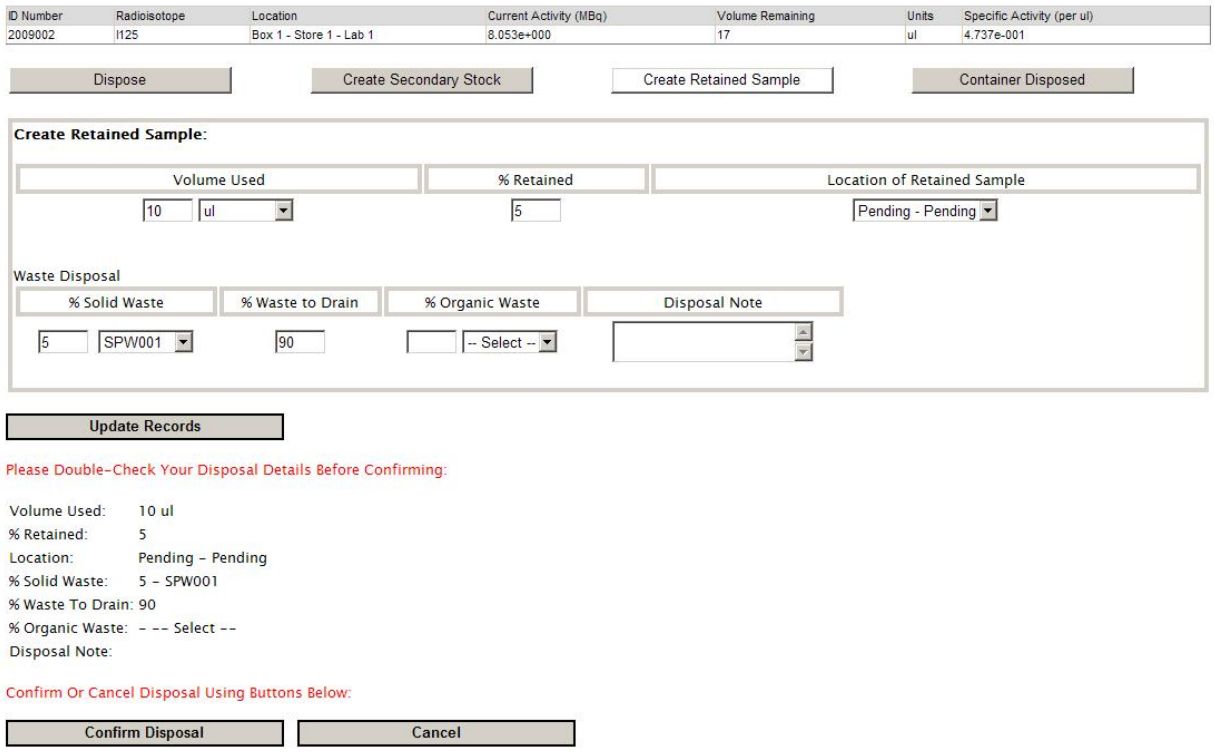
This should be used for simple, single session use, e.g. use of a stock with imminent disposal of all removed isotope - no retained samples or bits left over. All waste and usage must add up to 100%. Multiple solid waste disposals can be made. You can make one of the bins a gel store or granulator bucket to assist with final disposal.
Enter the volume removed from the stock and the volume unit. The percentage waste needs to be calculated and entered. This waste percentage should be based on measurements previously taken or taken at the time of your work. Use can be made of the contamination response tables to calculate waste produced. The notes field can be used to add information such as spillage.
Use update records and check that the disposal records are correct before confirming.

Create Secondary Stock



This screen is for creating secondary stocks from a primary stock or another secondary stock and so on… Will provide a new ID for the retained sample and an activity. There may be a small quantity of waste produced. An estimate (good) of the waste is entered as a percentage. If no waste produced there is no need to put any in. 100% waste disposals will result in 100% sample disposal!
You must choose a valid bin for disposal. You can see three solid waste bins available for disposals. These could include a sharps bin, a soft waste (clinical) or a container for storing waste prior to disposal via a granulator.
Use update records and check that the disposal records are correct before confirming.

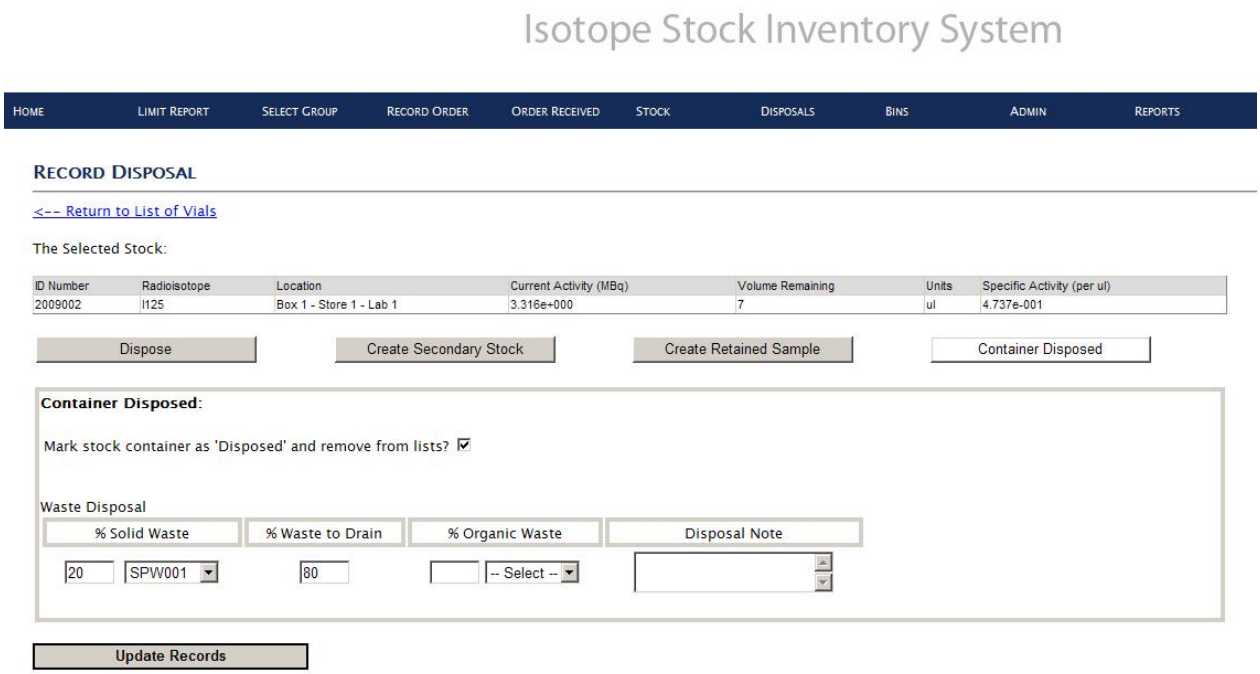
Create a Retained Sample



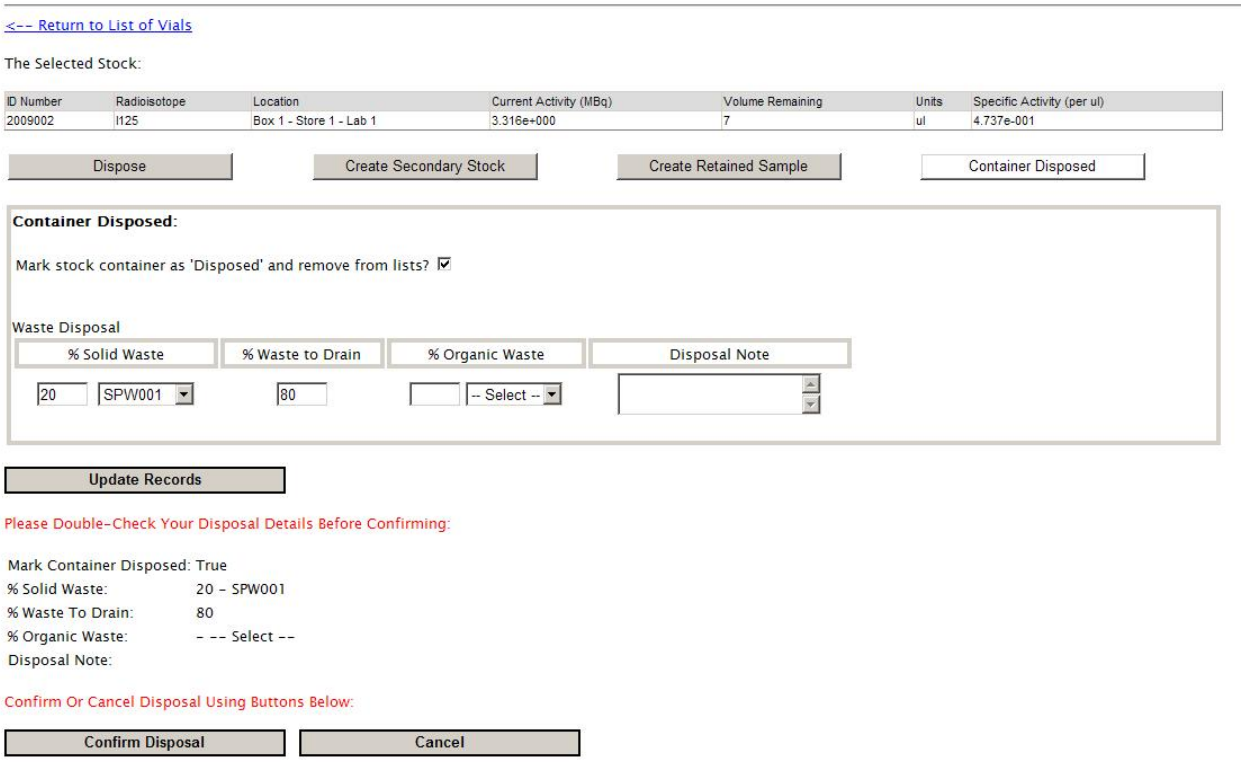
Use for sample prep whereby all of the removed Isotope is used with a sample retained for future use. Totals must add up to 100%. To dispose of end products of retained sample use container disposed.
Use update records and check that the disposal records are correct before confirming.

Vial or Sample End Disposal

Users will need to dispose of a vial or end products of retained samples:



User must check the ‘disposed’ box to remove the expired sample from the system. A record will be maintained for future reference but this is not visible to the user. Use should be made of this screen for end disposal of gels and retained samples.



This will remove a stock item from your list of stocks on view. A check must be made to ensure the vial or stock has been disposed by regular (Monthly) Audit.

Create a Bin

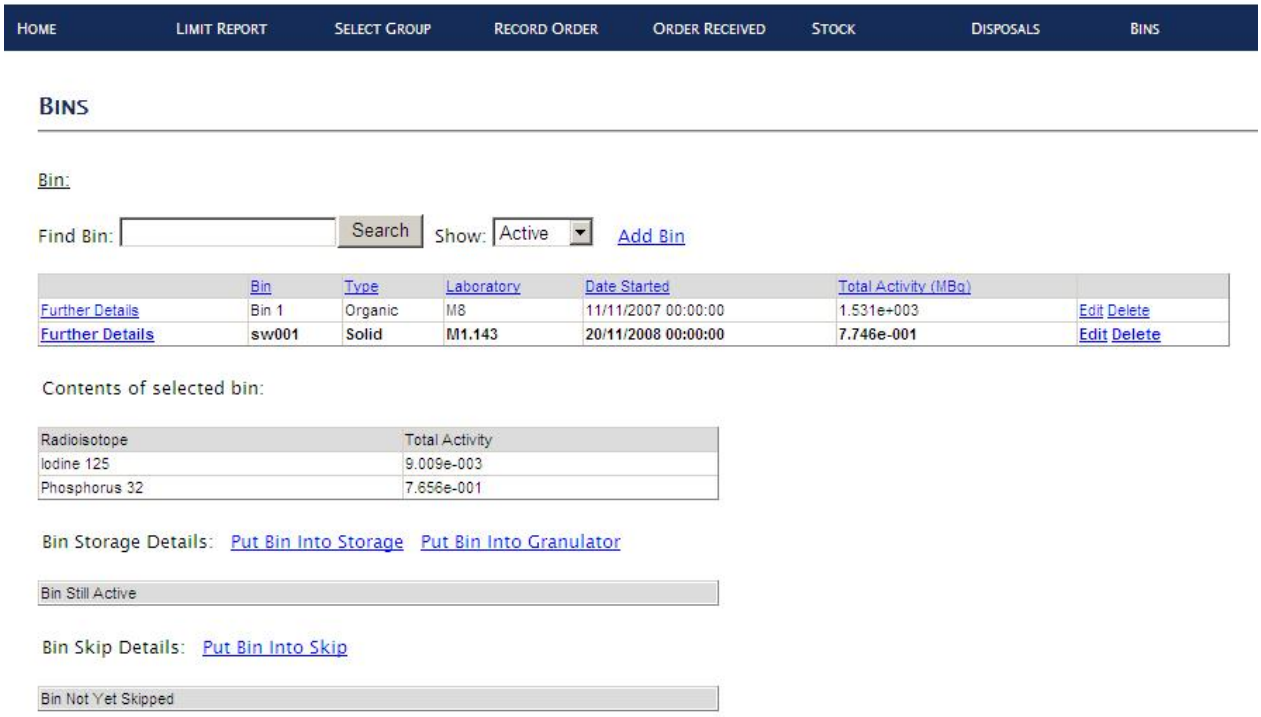
Use the Bin tab and click on ‘Add Bin’

This then offers you the type of bin to create and the location. You should only be able to see bins within the areas you have access to.

Can also be used to transfer bins to the decay store and URPO can use to dispose of off site.

Bins called Granulator bins or items to be granulated can be disposed of by clicking the granulate option instead of the bin to store option. This will dispose of this waste as aqueous waste and not solid.

Create a bin for storage of waste which will be granulated. This enables you to comply with the authorisation because granulated waste is still solid until point of granulation and is subject to the accumulation period.



To put the bin into storage

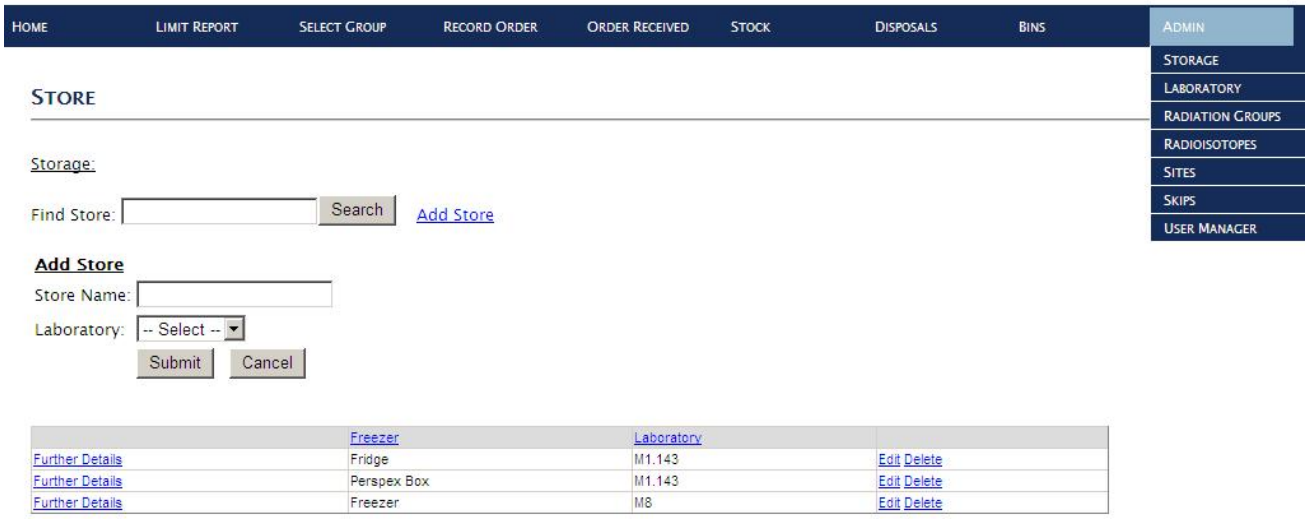
Click further details of the bin you wish to move then click ‘put bin into storage’ and choose the correct store. Remember to take the bin down to the store!!!

Granulate waste

If the waste container is specifically for granulated waste then you can use the ‘Put bin into granulator’ button and the waste will be disposed and recorded as a liquid waste. You must not dispose of Organic waste by granulation.

Create a storage place (Fridge / Freezer)

From the Admin tab choose ‘Storage’ then use the ‘Add Store’ and fill in the details. Submit to confirm the new store. You will need to have a valid laboratory prior to creating a new store. Laboratories can only be created by URPO.

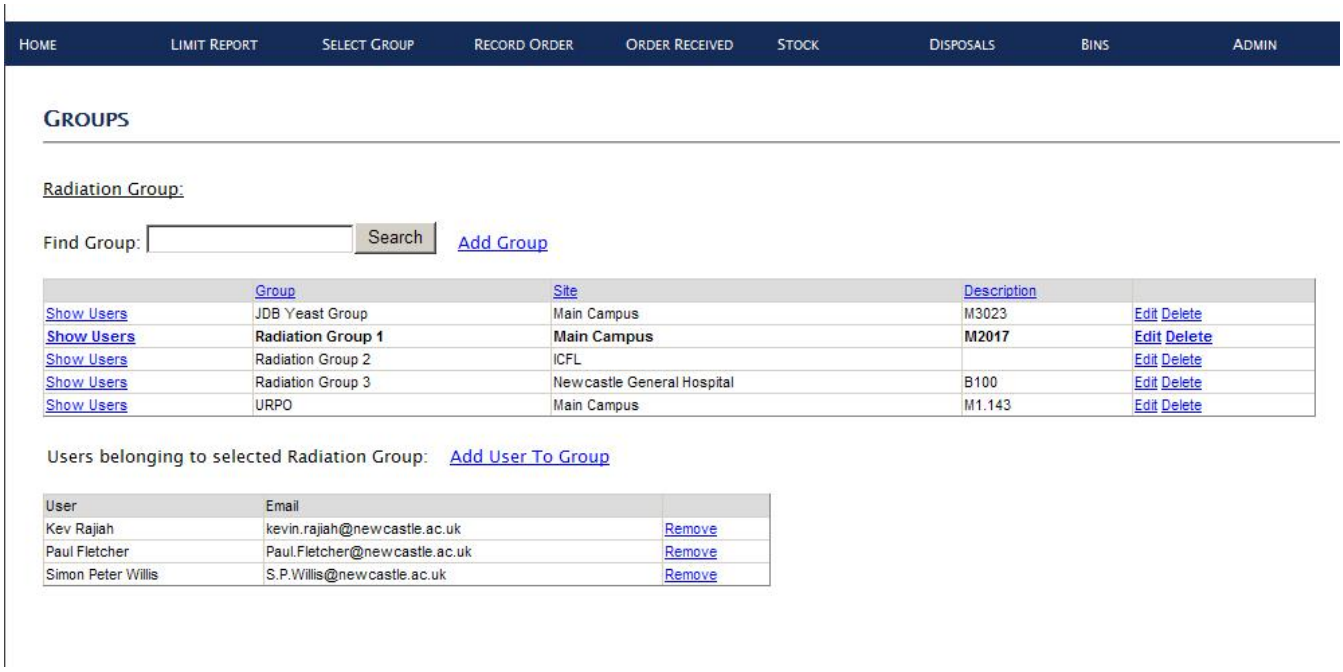


Liquid wastes

Liquid wastes must also comply with the authorisation. You will be notified if you exceed your user allowance. Decay correction ceases when a waste is disposed of as liquid. Similarly granulated waste and solid waste removed from site is the end point of decay correction so far as the Authorisations are concerned.

Invite User to be a member of a Radiation Group

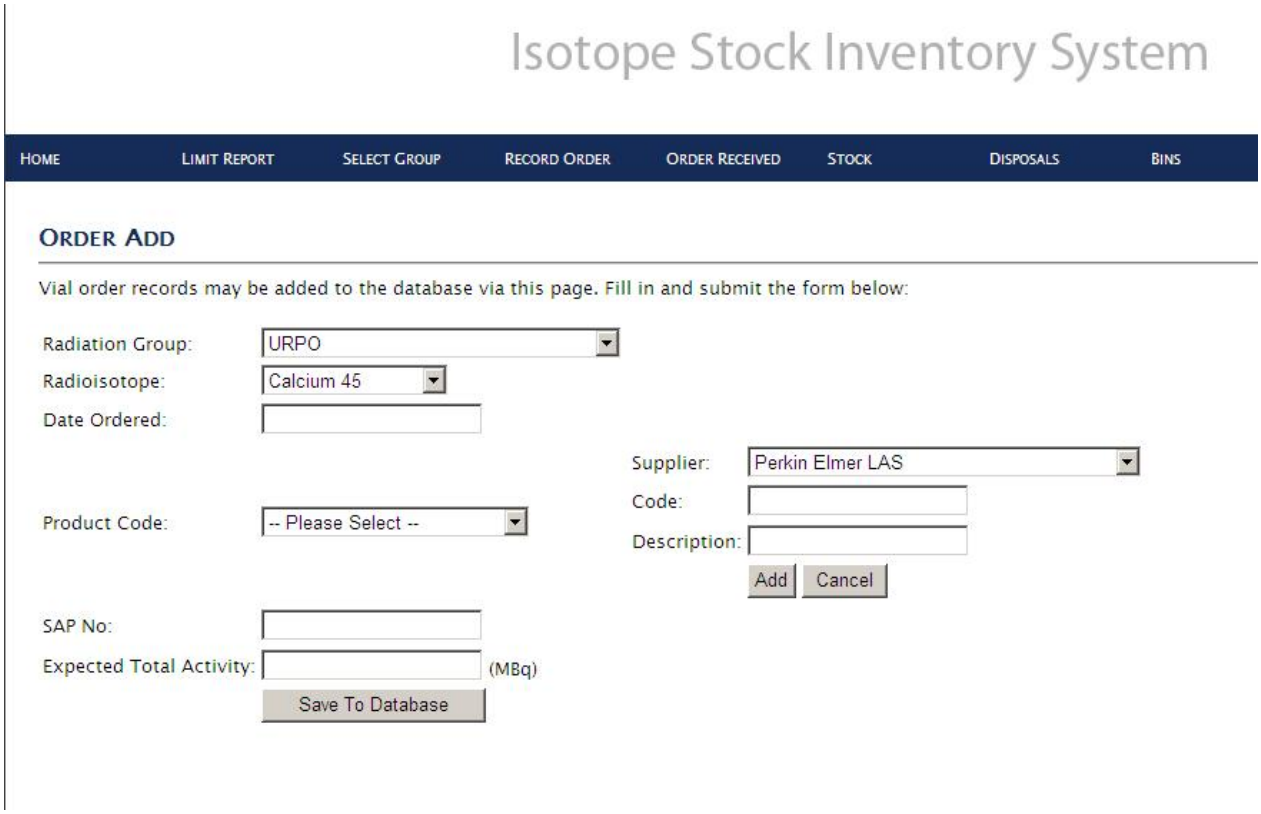
Radiation Protection Supervisors and Laboratory PI’s will need to add users to their radiation groups:



Go to the Admin; Radiation Groups page. Select ‘Show Users’
Then use ‘Add User to Group’ and locate and add user to your group.

Record Order –Admin only

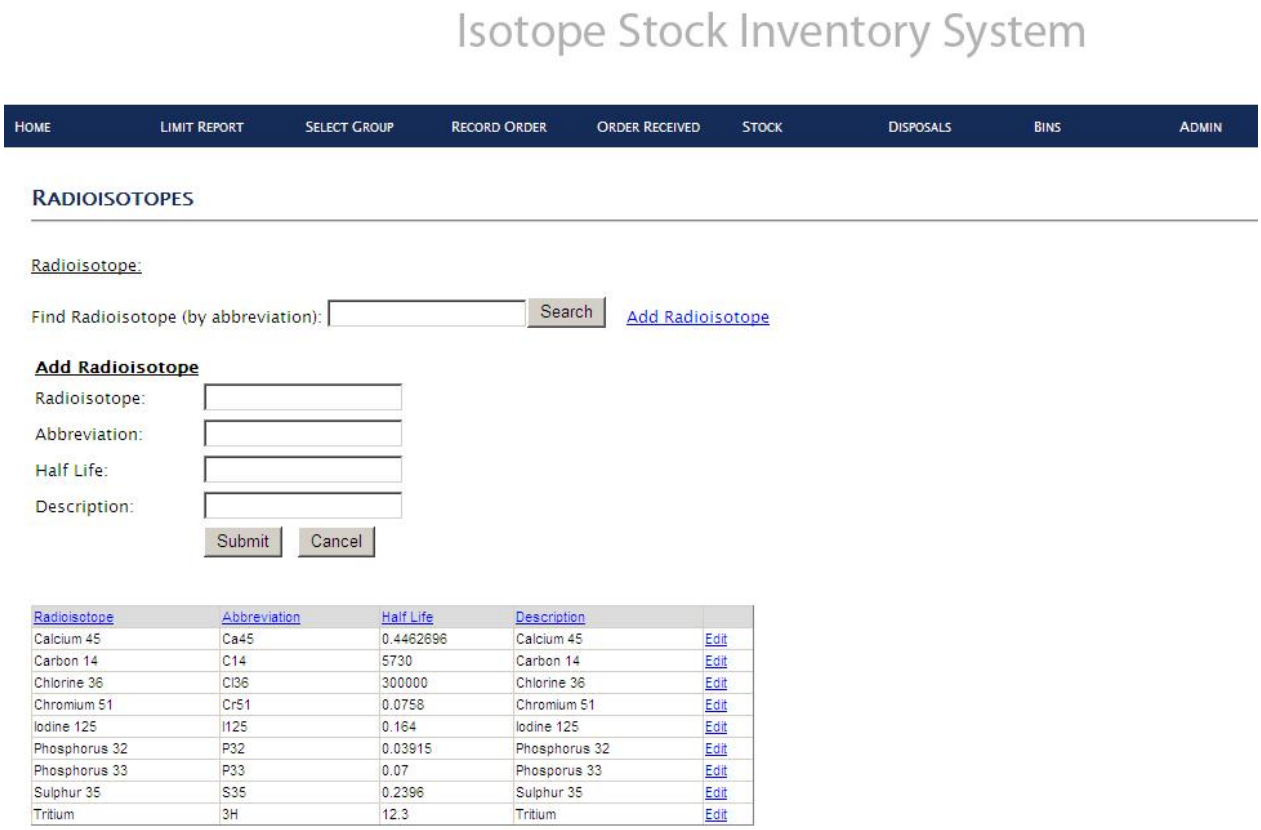
All orders must be put onto the system. This produces a stock ID number. URPO will place orders on system and assign each order to the radiation user group.
Select Radiation Group for the order
Choose the Isotope. If Isotope is not listed then you will need to create a new Isotope (new scientific discovery!)
Isotope will filter the current list of Product Codes. If it is a new product or not shown on the list then you can 'Add New' – Complete the details.
Insert an expected activity. This is used as a check when the order is received.



Create a New Isotope - Admin only

From the Admin tab choose Radioisotopes

Add Radioisotope and complete the details. Note half life is calculated in Years. Each year is 365.25 days long when calculating for short lived isotopes.



Radioisotope	Abbreviation	Half Life	Description	
Calcium 45	Ca45	0.4462696	Calcium 45	Edit
Carbon 14	C14	5730	Carbon 14	Edit
Chlorine 36	Cl36	300000	Chlorine 36	Edit
Chromium 51	Cr51	0.0758	Chromium 51	Edit
Iodine 125	I125	0.164	Iodine 125	Edit
Phosphorus 32	P32	0.03915	Phosphorus 32	Edit
Phosphorus 33	P33	0.07	Phosporus 33	Edit
Sulphur 35	S35	0.2396	Sulphur 35	Edit
Tritium	3H	12.3	Tritium	Edit